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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,280	05/25/2001	Seiichi Takeuchi	MAT-8138	4607

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RATNER AND PRESTIA
Suite 301
One Westlakes, Berwyn
P.O. Box 980
Valley Forge, PA 19482-0980

EXAMINER

PARSONS, CHARLES E

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,280

Applicant(s)

TAKEUCHI ET AL.

Examiner

Charles E Parsons

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/05/2004 have been fully considered but they are not persuasive. The Examiner disagrees with Applicants positions.
2. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case the reconstruction was made based on knowledge well known to those of ordinary skill in the art and backed up by the references cited. The cited references clearly teach that feedback information from the transmitter is necessary in order to properly control the transcoding rate in order to avoid transmission problems. Zhang teaches a transcoder capable of transcoding at various levels while Wang teaches that transmission rates must be controlled.
3. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
4. The Amendments made did not further limit the invention, therefore the Examiner maintains his rejection included below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Wang.

Claim 1. A digital transmitter-receiver comprising:

a receiving unit for receiving digital data transmitted in accordance with a first transmission protocol; (See Zhang figure 13 item 1302)

a transcoder for converting the received data to data in accordance with a second transmission protocol; and (See Zhang figure 13 item 1306)

a transmitting unit for transmitting output data from said transcoder to a terminal apparatus, (See Zhang figure 13 as well as column 1 lines 32-42 teaching the inherent contents of a channel which includes transmission units.)

wherein said transmitting unit monitors a transmission state and informs said transcoder of the transmission state, (See Zhang column 3 lines 22-26 as well as column 12 lines 62-64)

wherein said transcoder, based on the transmission state, changes and outputs data rate of the digital data. (While Zhang is not specific as to how his transcoder instructed to change data outputs according to the transmission channel, he does teach that the main reason for transcoding is to match data rates of incoming streams with output streams.

He further teaches that the transcoding can be done at various layers see figure 5.

Furthermore Wang PN 6434197 clearly teaches that the output rate must be controlled and normally is at the output using some form of rate controller see column 5 lines 37-45.

Therefore at the invention was made, it would have been obvious to one of ordinary skill in the art to configure the transcoder to output at the necessary data rate motivated by a need to avoid transmission errors or delays.)

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Claim 2. The digital transmitter-receiver according to claim 1 further comprising a first switching unit, wherein number of said receiving units is plural, wherein said first switching unit selects the digital data received by said plurality of receiving units, and feeds the digital data to said transcoder. (See Zhang figure 13 item 1302)

Claim 3. The digital transmitter-receiver according to claim 2 further comprising a second switching unit, wherein number of said transmitting units is plural, wherein output from said transcoder is fed into a transmitting unit selected by said second switching unit. (See Zhang figure 13 item 1308)

Claim 4. The digital transmitter-receiver according to claim 2, wherein said first switching unit selects one of said plurality of receiving units responsive to a request of the terminal apparatus. (See Zhang column 19 lines 52-55 implying that the inputs are selected.)

Claim 5. The digital transmitter-receiver according to claim 3, wherein said first switching unit selects one of said plurality of receiving 5 units responsive to a request of the terminal apparatus. (See Zhang figure 13 as well as column 19 lines 52-55 implying that the inputs are selected.)

Claim 6. The digital transmitter-receiver according to claim 3, wherein said second switching unit selects one of said plurality of transmitting units responsive to a request of the terminal apparatus. (See Zhang column 20 lines 1-10)

Claim 7. The digital transmitter-receiver according to claim 5, wherein said second switching unit selects one of said plurality of transmitting units responsive to a request of the terminal apparatus. (See Zhang figure 13 as well as column 19 lines 52-55 implying that the inputs are selected.)

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Claim 8-14: The digital transmitter-receiver according to claim 1, wherein the digital data is a first MPEG transport stream, wherein said transcoder separates a video elementary stream and an audio elementary stream from the MPEG transport stream, reduces data rate of the video elementary stream by at least one of thinning of a picture from the video elementary stream and thinning of a high frequency component of a discrete cosine transform (DCT) coefficient, and outputs a second MPEG transport stream by multiplexing the video elementary stream after the rate reduction and the audio elementary stream. (See Zhang figure 1 item 120 as well as column 6 lines 49-59 as well as figure 5 and column 12 line 32 through column 13 line 27.)

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

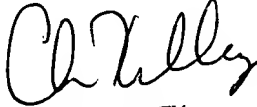
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Parsons whose telephone number is 703-305-3862. The examiner can normally be reached on M-TH 7AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CEP


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600